Neutron-Anti-Neutron Development

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How We Got Here

- ❖ Collaboration is being formed to pursue new search for neutron-anti-neutron oscillations using intense ESS cold neutron flux
  - Expect to improve sensitivity by $\mathcal{O}(500)$
  - www.nnbar-at-ess.org
- ❖ Question arose: what can be done at BNL?
  - Not a competitive oscillation experiment
    - At least not horizontal
    - (Semi-)vertical??
      - Discuss this over coffee or beer
  - Neutron test beams?
  - Other things "NNbar enthusiasts" are interested in?

Goals

- Opportunity to brainstorm
  - Talks meant to plant seeds
    - Information about what exists or is planned or may be of interest
    - Happy to discuss substantially different things
  - Good ideas often need (a lot of) refinement
    - Initial thoughts can be far off the mass shell…

Talks

- G. Muhrer
  - European Spallation Source: State of the art neutron spallation source
    - Can BNL offer complementary beams to help make ESS experiments a success?
- Y. Kamyshkov
  - Neutron regeneration
- R. Pattie
  - Fast and cold neutron test beams
- A. Saunders
  - Proton radiography at BNL?